

# 金魚有柄乳狀突腫瘤病例報告

## Peduncular Papillo-epithelioma of Goldfish

簡 肇 衡 · 余 廷 基\*

Chau-Heng Chien and Ting-Chi Yu

### Abstract

Two goldfish (*Carassius auratus* Nilson) with spontaneous tumors on their naris were found at Lu-Kang in September 1980. A neoplastic growth on the operculum was observed 19 days after the removal of the original tumor.

In both cases, there were papillomatous periphery and nest-shaped as well as arborescent central cores. The stroma was encapsuled by the basal membrane. Enclosed inside the membrane were closely arranged hyperchromatic columnar epithelial cells, loosely organized fusiform cells, blood vessels, mucous cells, fibrous material and deformed scales.

### 緒 言

有關魚類發生上皮腫瘤的報告很多。Nigrelli *et al.* (1965) 曾調查加拿大太平洋沿岸扁魚 (*Psetti-  
chthys melanosticus*) 之流行性表皮腫瘤。Deys (1975) 對歐洲鰻表皮乳狀突腫做了詳細的綜合報導。窪田 (1975) 報告了日本虹鱒的口腔及口唇部基底細胞癌。Chronwall *et al.* (1976) 提出 *Salmo salar* L. (1978) 之表皮乳狀突腫之組織學報告。江草 (1978) 報導鯉科魚類的乳狀突腫。Periffer *et al.* (1979) 發現兩棲類蝶螈的惡性表皮腫瘤 (epitheliomas)。Heidemarie Kranz *et al.* (1980) 藉注射 tertiated thymidine 研究 *Parophrys vetulus* 之皮膚腫瘤內的細胞動能。Bylund *et al.* (1980) 報導野生及養殖大西洋鮭 (*Salmo salar* L.) 之表皮乳狀突腫。Grizzle *et al.* (1981) 報導含氯廢水池中 *Ictalurus melas* Rafinesque 魚之乳狀突腫。

本報告係臺灣產金魚患「有柄乳狀突上皮腫瘤」之組織病理學病例報告。

### 材 料 與 方 法

1980年9月自鹿港私人養殖場採得患腫瘤金魚二尾。將病魚帶回試驗室後以細線縛住維繫腫瘤之柄 (peduncle), 從結紮處遠端剪下腫瘤, 進行組織病理觀察。手術後金魚則放回水族箱中繼續飼養及觀察。腫瘤組織之固定液為波因液 (Bouin's fluid) 及福馬林。染色為 H-E, Azan 及 Van Gieson 染色並進行 PAS 反應試驗。

### 結 果

#### 外 觀

腫瘤長於金魚右鼻孔前上端, 一尾長一個, 另一尾長兩個 (Fig. 1)。腫瘤由一纖細的支持軸所支

\* 臺灣省水產試驗所, 鹿港分所。Lukang Branch Station, Taiwan Fisheries Research Institute, Lu-kang Hai-pu Li No. 106.

持，不時因游動而由支持軸處出血，病魚虛弱不活潑。長2塊腫瘤之金魚，其腫瘤一為血紅色，另一為粉紅色，腫瘤外觀呈菜花狀，質細緻而柔軟。二尾金魚中，一尾之腫瘤經切除，於19天後，復於鰓蓋另長出一紅色瘤 (Fig. 2)。

### 組織病理學

腫瘤之邊緣呈乳狀突起 (Fig. 3)，分布著嗜鹼性染色 (basophilic) 的基底細胞，而腫瘤中心部份除具有嗜鹼性細胞排列成的結節及樹枝狀突外尚有血管、纖維組織、多形性的骨組織及淡染呈渦卷形的基質 (Fig. 4)。結節中央部份的細胞排列稀疏無方向性，而邊緣細胞排列則緊密呈柵狀，外圍有大量纖維組織的梭形細胞 (Fig. 5)，有些結節內具有粘液細胞 (Fig. 6)。有些結節中央有粘液狀分泌物，其邊緣有小型骨組織。(Fig. 7) 骨組織及結節邊緣的細胞為纖維細胞 (Fig. 8)。

此腫瘤中的有絲分裂像不多，結締組織分布較疏鬆，有相當多的粘液。作者依其特徵鑑定為「有柄乳狀突上皮腫瘤 (peduncular papillo-epithelioma)。

## 討 論

日本所發生鮭鱒類之基底細胞癌，常發生在一週歲魚之口腔及齒齦上，窪田 (1975) 認為此病與腫瘤病毒有關。本金魚腫瘤亦由基底細胞所造成，但具有一纖維構成的柄，其基底細胞並不向皮下各層組織侵入，但切除後又產生另一小腫瘤，是為多發性的或腫瘤細胞的轉移，尚待進一步的求證。基底細胞癌者發生於哺乳類，常有 prickle cell 出現，若該細胞角化則可形成所謂上皮珍珠 (epithelial pearls) 之構造，如此可稱此腫瘤為扁平細胞癌 (squamous cell carcinoma)。但因魚類無角質層，而最接近角質的物質是鱗片，此腫瘤有相當多鱗片變形的骨組織 (Figs 7-8)。很相似扁平細胞癌。又依照外形及發生部位而言，則很像發生於人之鼻息肉之上皮乳狀突腫 (polyp 'inverted papilloma')。但鼻息肉之上皮乳狀突腫為良性，此金魚的腫瘤有很多惡性癌的特徵。故著者依外觀、組織形態鑑定為「有柄乳狀突上皮腫瘤。

## 摘 要

本篇報告係養殖金魚患「有柄乳狀突上皮腫瘤」之病例報告。具柄狀如菜花之乳狀突腫瘤長於金魚之鼻部。腫瘤經切除後，復長出另一腫瘤於鰓蓋。腫瘤之基質為基底細胞、纖維組織、微血管、粘液細胞及變形骨質等構成。

## 謝 詞

本研究承農發會之經費補助，臺灣省水產試驗所李所長燦然博士之熱心鼓勵，臺灣大學動物系系主任郭光雄博士、屏東農專劉正義教授及陽明醫學院柯立文博士指正及鹿港分所郭河研究員提供材料及全體同仁的幫助，得以完成，在此謹致最大之謝意。

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### Legend

- Fig. 1. A tumor on the naris of a goldfish.  $\times 2/3$ .
- Fig. 2. A neoplastic growing on the operculum was examined after the removal of the original tumor.  $\times 2/3$ .
- Fig. 3. Hyperplasia of epithelial cells with papilloma. H-E stain.  $\times 100$ .
- Fig. 4. A central core, round-shaped stroma (left), two arborescent processes stroma deformed skeleton and light stain stroma were shown. H-E stain.  $\times 400$ .
- Fig. 5. Showing a round-shaped strong basophilic, central cells lacking polarity and peripheral close-packed more in order that circulated by fibrous cells. H-E stain.  $\times 400$ .
- Fig. 6. Two nest-shaped stromata interspersed with some mucous cells. H-E stain.  $\times 400$ .
- Fig. 7. A basophilic neoplastic stroma with some mucous exudation and a round-shaped basal cells scale enveloped were shown. H-E stain.  $\times 400$ .
- Fig. 8. Condensed collagenous fibers circulating some stromata and a deformed scale were shown Azan stain.  $\times 400$ .

